

NASA TECH BRIEF



NASA Tech Briefs are issued to summarize specific innovations derived from the U. S. space program and to encourage their commercial application. Copies are available to the public from the Clearinghouse for Federal Scientific and Technical Information, Springfield, Virginia 22151.

Electrical Cabling Withstands Severe Environmental Conditions

The problem:

An electrical cable that can withstand temperatures from -150°F to 400°F for long periods, or 1500°F for short periods, without losing circuit integrity. The cable would also have to perform in severe environmental conditions of vibration and water, and remain flexible and abrasion resistant.

The solution:

Develop multiconductor electrical cables that are heat, vibration, and water resistant.

How it's done:

The cable consists of nickel plated copper conductors; extruded silicone primary insulation for electrical integrity; glass braid to hold the primary construction together during a fire; and nickel plated copper shield and glass braid to add jacket strength and prevent protrusion of the shield through the jacket. The jacket is a high strength silicone extrusion which provides the

moisture protection and resistance to mechanical abuse.

Note:

Inquiries concerning this invention may be directed to:

Technology Utilization Officer
Marshall Space Flight Center
Huntsville, Alabama 35812
Reference: B66-10427

Patent status:

Inquiries about obtaining rights for the commercial use of this invention may be made to NASA, Code GP, Washington, D.C. 20546.

Source: J. D. Hathaway of
North American Aviation, Inc.,
under contract to
Marshall Space Flight Center
(M-FS-1585)

Category 01